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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/745,622
Filing Date: December 21, 2000
Appellant(s): LU, JIN

Oleg F. Kaplun
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 19, 2007 appealing from the Office action mailed February 23, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,628,891	Vantalon et al.	9-2003
2003/0103532	Bertram et al.	6-2003
2002/0101991	Bacon et al.	8-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vantalon et al. (US006628891B1) in view of Bertram et al. (US 20030103532A1) and Bacon et al. (US 20020101991A1).

Regarding claim 1, Vantalon et al. (Vantalon) discloses a system for sending out-of-band (OOB) service information from a service provider (See Fig. 4), the system comprising:

a conditional access module (CAM) which receives an in-band (IB) transport stream (TS) including IB TS packets (See Fig. 4 and 19, CAM, in-band receiver, and transport stream co-processor; column 6 lines 15-20 and column 7 lines 18-27), the CAM module including,

a processor (See Fig. 4, 40) for processing OOB service information from a service provider, constructing OOB TS using the OOB service information and sending the OOB TS to a set-top box using a transport stream channel (See Fig. 4 and 5; column 6 lines 15-20 and 50-65); and

wherein the set-top box includes a processor for processing the OOB TS (See Fig. 4, microprocessor unit 34).

However, Vantalon does not disclose a system or method where the CAM sends the OOB data as packets, identifying unoccupied gaps in the IB TS, and inserting the OOB TS packets in the unoccupied gaps, and for the CAM to be embodied as a point of deployment (POD) module.

Bertram et al. (Bertram) discloses a method for sending data to the subscriber's equipment using content streams. The content data is configured or "constructed" as packets to be sent to the subscriber's equipment within the content stream (See paragraph 0020). Furthermore, Bertram further discloses a method of combining asset or "OOB" packets with content or "in-band (IB)" packets into one transport stream. Asset packets include control scripts much like how the OOB channel is used to send control data (See paragraph 0021 lines 1-2). The content packets include content material much like how the IB channel is used to send video/audio data. Bertram combines the content packets (Labeled as C in Fig. 2) and asset packets (Labeled as A in Fig. 2) in a way so that the asset packets are placed in between the content packets or "identifying unoccupied gaps in the IB TS, and inserting the OOB TS packets in the unoccupied gaps" (See Fig. 2A and 2B). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the CAM disclosed by Vantalon to send the OOB data as packets to the receiver or subscriber's equipment and to combine the OOB data with the IB data so that the OOB packets are inserted in the unoccupied gaps, as taught by Bertram, in order to provide a more organized means of sending data to the receiver so that the data can be easily updated if need be and to reduce the number of connection needed to interface the CAM with the receiver by providing only one transport stream for both IB and OOB packets.

Bacon et al. (Bacon) discloses an external conditional access module that is used within a host terminal or "set-top box" (See Fig. 2). Bacon discloses that the external conditional access module is also known as a POD (See paragraph 0002).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the CAM disclosed by Vantalon to be embodied as a POD, as taught by Bacon, so that the module would be in accordance with a well known and established interface thereby ensuring greater compatibility between users and providers.

Regarding claim 2, Vantalon in view of Bertram and Bacon discloses that the CAM or POD includes a transmit buffer where packets are stored prior to being sent (See Vantalon column 8 lines 1-15).

Regarding claim 3, the POD module sends the OOB TS packets between two consecutive IB TS packets of the IB TS without delaying the two consecutive IB TS packets (See Bertram Fig. 2, OOB packets "A" and IB packets "C"). Furthermore, the transport stream packets are not delayed in Bertram because the original TS that the distribution network receives already has the NULL packets, therefore the distribution network and the subscriber's equipment will not experience any delays.

Claims 4, 5, and 6 contains the limitations of claims 1 and 3 and is analyzed as previously discussed with respect to those claims.

Claim 7 contains the limitations of claim 1 (wherein the CAM is also known as a "data module") and is analyzed as previously discussed with respect to that claim.

Claim 8 contains the limitations of claims 2 and 7 and is analyzed as previously discussed with respect to those claims.

Claim 9 contains the limitations of claims 3 and 7 and is analyzed as previously discussed with respect to those claims.

Claim 10 contains the limitations of claims 1 and 7 (wherein Bacon discloses a POD) and is analyzed as previously discussed with respect to those claims. Furthermore, it is noted that smart cards, wireless data interface appliances, personal computers, or Internet appliances are well known in the art.

Claim 11 contains the limitations of claims 1, 4, 6, and 7 and is analyzed as previously discussed with respect to those claims.

Claims 12, 13, and 14 (wherein the receiver is also known as a "host device") contains the limitations of claims 1 and 3 and is analyzed as previously discussed with respect to those claims.

Claim 15 contains the limitations of claims 2 and 4 and is analyzed as previously discussed with respect to those claims.

(10) Response to Argument

Appellant argues with respect to claims 1-15 that Bertram does not disclose identifying unoccupied gaps in the IB TS and inserting the OOB TS packets in the unoccupied gaps. However, reading the claims in the broadest sense, Vantalon in view of Bertram and Bacon does meet the limitations of the claims. Bertram discloses that the system identifies unoccupied gaps in the IB TS using NULL packets, wherein no data (e.g. no payload) occupy the space within the NULL packets. The system then inserts the OOB TS packets in place of the NULL packets, wherein the NULL packets represent the unoccupied gaps (e.g. no payload occupies the space) (See Bertram Figs. 2A and 2B).

Appellant insists that the NULL packets are not unoccupied gaps. However, the specification does not clearly define what a gap consists of in a transport stream. In the broadest sense, a NULL packet is considered an unoccupied gab. The NULL packet contains no data/payload, therefore no data/payload occupies the space. Appellant further argues that NULL packets are physical packets occupying a location. However, it is still considered an unoccupied gab because the NULL packet contains no payload.

Appellant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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